

# Chesapeake Bay WQS Amendments

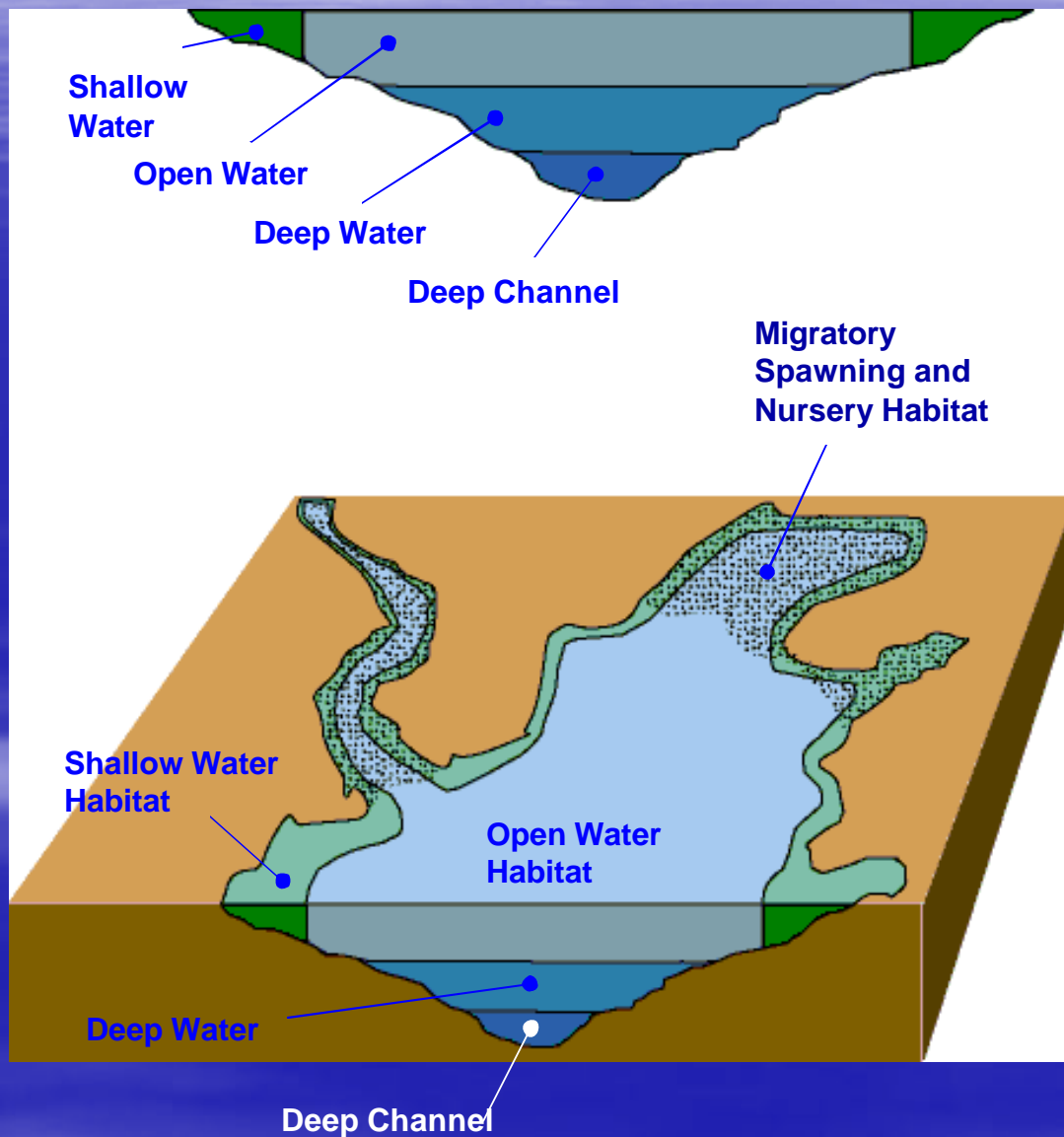
- Bay Standards re-cap
- 2006 305b/303(d) Criteria Assessment
  - What we did and didn't do
- EPA WQS Guidance 2007 Addendum
- 2008 305(b)/303(d) Assessment
  - Changes from 2006 resulting from EPA Guidance Addendum
- Possible Changes to VA WQS text

4/18/07 TAC Meeting



# “Bay Standards” - Uses

- 5 Aquatic Life sub-uses
  - Migratory Spawning and Nursery (MSN)
  - Shallow Water Submerged Aquatic Vegetation (SWSAV)
  - Open Water Fish and Shellfish (OW)
  - Deep Water Fish and Shellfish (DW)
  - Deep Channel Refuge (DC)



# “Bay Standards” - Criteria

- Three criteria parameters
  - Dissolved Oxygen
    - Instantaneous, 1-day, 7-day, 30-day
  - Water Clarity
    - Submerged Aquatic Vegetation present
    - Water Clarity (% light reaching bottom)
  - Chlorophyll
    - Numeric (ug/l Chlorophyll *a*)
    - Narrative (“ecologically undesirable consequences”)
- Complex assessment methods
  - Interpolation, Create CFD, Compare CFD to reference

# 2006 Assessment

- What we did:
  - 30-day D.O. criteria
  - Aquatic Vegetation Acres criteria
- What we didn't do:
  - “Short duration” D.O. criteria (7d, 1d, Instantaneous)
  - Chlorophyll criteria
  - Water Clarity criteria (% light reaching bottom)

# EPA Bay Criteria Addendum #2

To be published Spring 2007

- Explains/Documents many prior technical aspects
  - Separate summer vs. non-summer open water DO assessments.
  - Many details of CFD Process.
- Includes new assessment procedures

# 2008 Assessment

## ■ What's New

- Refined “Biological Reference Curves”
  - OW/DW 30-day dissolved oxygen
- New Criteria Parameters assessment
  - Chlorophyll in James
  - Water Clarity (% light reaching bottom) Criteria
    - Two Water Clarity Methodologies
      - CFD Based
      - “Water Clarity Acres”
    - New default Water Clarity Acres criteria for previous “zero goal” segments
- New D.O. Criteria Assessments
  - Deep Channel Instantaneous Minimum (using new biologically based reference CFD)
  - Pamunkey/Mattaponi “special” 30-day criteria



# 2008 Assessment

- What we won't do
  - Most Short Duration DO criteria (7D,1D,Instantaneous)
    - Exception is DC Instantaneous Criteria.
  - Narrative Chlorophyll criteria

# Possible changes to VA WQS in response to EPA Addendum

- Clarify summer vs. non-summer for open water DO assessment
- Simplify water clarity introduction so any criteria may be used to assess and protect shallow water use
- Delete SAV no grow zones (no shallow water use)
- Add SAV and/or water clarity acres to zero goal segments (RPPOH, MPNOH, PMKOH and POCOH)
- Add new EPA addendum references for use of new CFD reference curves and other details
- Delete 10% reference curve (this is in the new addendum)



# Questions ?

